Clinical Orthopaedics and Related Research:
SECTION II: GENERAL ORTHOPAEDICS: Miscellanea: PDF Only

Comparison of a One-Step Iodophor Skin Preparation Versus Traditional Preparation in Total Joint Surgery

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Abstract

The purpose of this study was to compare a traditional two-step method of preopcrative skin preparation using aqueous iodophors with a one-step method using an iodophor-in -alcohol solution. Sixty patients having clean total joint surgery were randomly divided into two prcoperative skin preparation groups (30 in each). In one group, the skin was prepared with a traditional five-minute aqueous iodophor scrub followed by the application of an aqueous iodophor solution as a paint. In the other group, the skin was prepared with a one-step application of a water-insoluble iodophor-in-alcohol solution applied as a paint. Bacterial colony counts were made by sampling the incision area with culture plates before skin preparation and just prior to wound closure. The one-step application of a water-insoluble iodophor-in-alcohol solution was equally as effective as the traditional scrub-and-paint preparation in reducing the number of bacteria about the operative site. The water-insoluble preparation also resulted in significantly improved drape adhesion as compared to the standard scrub-and-paint procedure. The one-step water-insoluble iodophor-in-alcohol solution fulfills the requirements for an operative site skin preparation and significantly improves drape adhesion. It is more convenient, easier to apply, less time consuming, and potentially less expensive than the traditional scrub-and-paint method.